BY ORDER OF THE COMMANDER

AETC SUPPLEMENT 1
AFI 33-106
17 JANUARY 1997

Communications

MANAGING HIGH FREQUENCY RADIOS, LAND MOBILE RADIOS, CELLULAR TELEPHONES, AND THE MILITARY AFFILIATE RADIO SYSTEM

★AFI 33-106, 1 February 1996, is supplemented as follows

NOTE: Submit recommendations to change or improve this supplement to the command LMR functional manager (AETC CSS/SCYR), 61 Main Circle, Suite 3, Randolph AFB TX 78150-4546. Also notify AETC CSS/SCYR of omissions or conflicts with other AFIs.

4.3. LMR, cellular, and pager functional management will be provided by AETC CSS/SCYR, Randolph AFB TX.

4.5.3. Do not record installation, removal, relocation and no-trouble-found work orders as accountable maintenance actions in the Five-Year Replacement Plan.

4.5.4. EAID budget code 9 LMR, pager, and cellular assets (formerly ERRC coded NF3) have been recoded NF1 by base supply. Once the supply deregulation action is complete, these assets will no longer be accountable under Table of Allowance (TA) 660 authorizations or appear on the Allowance Source Code (ASC) Listing. Base CSOs will ensure that the remaining ASC listed LMR assets are reconciled with the most current management information system (MIS) database and existing maintenance service contract inventories, semi-annually.

4.5.5. (Added)(AETC) LMR Maintenance Service Contracts:

4.5.5.1. Do not include items such as central base pagers and ancillary equipment, cellular telephones, vehicular chargers, antennas, scanners, public address systems, sirens, or light bars, on the LMR maintenance service contract. These and similar items should only receive maintenance as required. Consider removing all mobile and portable LMR equipment from the maintenance contract. The base contracting office can assist you in setting up an international merchant purchase agreement card (IMPAC) account for these actions. This option will often produce significant cost savings and should be considered whenever possible. The owning unit is responsible for all maintenance costs on their equipment and can be tasked to provide an annual fund cite for these IMPAC account repairs, if desired.

4.5.5.2. CSOs should ensure that, where used, maintenance service contracts permit qualified DoD employees to perform LMR equipment installations and removals. Users and customer agencies will not be authorized to perform maintenance on LMR equipment without CSO approval.

4.6.6. All "request for exception" documents will be routed through AETC CSS/SCYR. Base LMR managers will not submit any documentation directly to HQ AFCA without the prior knowledge and consent of AETC CSS/SCYR.

4.6.10. The CSO (or designated representative) will retain the original LMR or pager approval document in accordance with procedures outlined in table 33-3 of AFMAN 37-139, *Records Disposition Schedule*. If the original requirement document is lost or becomes unreadable, the using agency will prepare a new document and submit it to the CSO for approval and filing.

4.6.13. Base LMR managers will ensure that LMR MIS database inventories have been accomplished prior to performing these LMR MIS backup and MAJCOM export routines.

Supersedes AFI 33-106/AETC Sup 1, 14 February 1995
OPR: HQ AETC/SC (Project Office:
AETC CSS/SCYR [Mr. H. P. Frerichs])

Certified by: AETC CSS/CC (Lt Col M. Marro)
Pages: 7/Distribution: F; X:
HQ AFIA/IMP - 1
AUL/LSD - 1

4.7. The use of TLMR systems is limited to those locations experiencing base-wide integration, interoperability, frequency congestion, and (or) assignment availability problems affecting their overall operational capability. TLMR systems may be established by individual bases or cooperatively with other federal, state, or local agencies. Bases within 30 Km (18.6 miles) of an existing trunked LMR system authorized by the National Telecommunications and Information Administration (NTIA) may be required to migrate to one of these systems in order to solve their frequency congestion and (or) assignment availability problems. Affected bases will request access to cooperative systems through AETC CSS/SCYR and the sponsoring agency's trunked system administrator.

4.7.3. (Added)(AETC) Requirements for TLMR systems cannot be identified for funding locally or through command channels until a TLMR conversion plan has been approved by the Department of Commerce (DOC), NTIA, Interdepartment Radio Advisory Committee (IRAC), and Spectrum Planning Subcommittee (SPS).

4.7.4. (Added)(AETC) CSOs will ensure the TLMR conversion plan is prepared and forwarded to the command LMR functional manager with a copy of the locally validated requirement document, using the format in attachment 3 (this supplement).

4.7.5. (Added)(AETC) The CSO will submit an annual TLMR usage report through the command LMR functional manager to the SPS. Use the format in attachment 4 (this supplement). (***NOTE:*** See AFI 33-118/AETC Sup 1, *Radio Frequency Spectrum Management*, for additional information on trunked frequency acquisition procedures.) The reporting requirement in this supplement is exempt from licensing in accordance with AFI 37-124, *The Information Collections and Reports Management Program; Controlling Internal, Public, and Interagency Air Force Information Collections*,paragraph 2.11.12.

5. The AETC functional manager for cellular telephones is AETC CSS/SCYR, Randolph AFB TX.

★5.1. All requirement documents that identify cellular telephones as the recommended technical solution will be approved by the CSO. This responsibility cannot be delegated to a subordinate.

5.2.2. The decision matrix provided in attachment 5 (this supplement) should be used as a guide in determining the appropriateness of cellular telephone technical solutions.

5.2.3.The economic analysis will, as a minimum, consist of a comparison of equipment purchase prices, cellular airtime charges and estimated life-cycle costs versus the equivalent estimates of potential alternatives.

★5.2.3.1. (Added)(AETC) The CSO (or designated representative) will keep the original cellular telephone approval document in accordance with procedures outlined in AFMAN 37-139, table 33-3. If the original requirement document is lost or becomes unreadable, the using agency will prepare a new requirement document and submit it to the CSO. If the recommended technical solution continues to be a cellular telephone, the CSO will approve the requirement and file the new document.

5.5. AFI 33-111, *Telephone Systems Management*, addresses billing procedures associated with the acquisition and operation of cellular telephones (lease or purchase price, maintenance costs, connection fees, airtime fees, etc.). Airtime fees are considered to be "equivalent charges" for billing purposes. LMR managers should not be appointed telephone control officers (TCO) or be tasked with the validation of billed charges.

7.3.1. The HQ AETC MARS director is the command LMR manager (AETC CSS/SCYR, Randolph AFB TX).

7.3.3. Base LMR managers will serve as installation MARS directors unless the CSO identifies an alternate individual who will better suit local requirements. In such cases, the CSO will forward a copy of the appointment letter to AETC CSS/SCYR.

ANTHONY W. BELL, JR., Colonel, USAF
Director of Communications & Information

3 Attachments (Added)(AETC)
3. TLMR Conversion Plan
4. Annual TLMR Report
5. Cellular Telephone Acquisition Decision Matrix

TLMR CONVERSION PLAN (ADDED)(AETC)

A3.1. Establishing a Trunking System. Requests to establish a trunking system will be sent to the command LMR functional manager in the following format:

1. Operating location:
   (City and state, or geographical subdivision)

2. Equipment identification:
   (Manufacturer and model number and name of equipment)

3. Certified docket number:
   (This is the SPS docket number certifying NTIA spectrum support of the equipment. The vendor will provide this equipment.)

4. System overview:

   a. Radio crosspatches:
   (Yes/No - If yes, explain)

   b. Cross-band:
   (Yes/No - If yes, explain)

   c. Voting:
   (Yes/No - If yes, explain)

   d. Number of repeater sites:
   (If more than one, explain)

   e. Number of telephone interconnects:

   f. Line diagram: (Provide a line diagram representing the system configuration and method of connecting multiple sites)

   g. Other:
   (Provide any other system information.)

5. Coverage information:
   (Provide the following information for each repeater site.)

   a. Number of repeaters at the site:

   b. Geographical coordinates:
   (In degrees, minutes, and seconds)

   c. Site elevation:
   (In meters above mean sea level)

   d. Antenna height:
   (In meters above site elevation)

   e. Antenna gain:
   (In dBi)

   f. Transmitter power:
   (In watts)

g. Radius of operation or geographical plot of required coverage:
(In kilometers)

6. Frequency requirements.

   a. Frequency band:

   b. Narrowband capability: (Yes/No)

   c. Number of channels (frequency pairs) required:

   d. Rationale for number of channels:

7. System use:
   (Identify each of the user types [administrative, fire, law enforcement, medical, etc.] to be supported by the system and provide the following information for each type.)

   a. Number of mobiles:

   b. Number of portables:

   c. Number of fixed stations:

8. Target date for system activation:

9. Frequency assignments to be replaced by this system:

   a. Frequencies that will be deleted once installation of the trunked system is completed: (Include the agency serial number and the projected date the frequency will be deleted.)

   b. Frequencies to be used by the trunked system: (Enter "TBD")

10. Availability of commercial services:

    a. Commercial SMR or cellular services available: (Yes/No)

    b. Justification for nonuse:

11. Sharing availability:

    a. System available for sharing with other federal agencies: (Yes/No)

    b. Rationale for nonavailability:

12. Estimated initial cost of the system:

A3.2. Expanding a Previously Certified TLMR System. Requests for expansion of previously certified TLMR systems must also be submitted to the SPS for approval. These requests will be forwarded through the command LMR functional manager in the following format:

1. Operating location: (City and state, or geographical subdivision)

2. Previous certification docket number:

3. Additional frequency requirements:

a. Number of additional channels (frequency pairs) required:

b. Rationale for the additional channels:

4. Details of the expansion:

a. Additional repeater sites:

b. Additional users:

5. Target date for expansion/additional channel activation:

6. Estimated cost of the expansion:

ANNUAL TLMR REPORT (ADDED)(AETC)

INSTRUCTIONS: During the first 5 years of TLMR system operation, an annual report will be submitted to the SPS through the command LMR functional manager. This information will provide the SPS and other NTIA committees with the statistical information necessary for justification of future TLMR system expansions. The report will be prepared in the following format:

1. Operating location:
   (City and state, or geographical subdivision)

2. SPS docket number:
   (Certification of spectrum support)

3. Date of system activation:

4. System information:

   a. Number of base station locations:

   b. Number of frequencies used:

   c. Number of fixed stations:

   d. Number of mobiles:

   e. Number of portables:

   f. Description of users: (e.g., security, medical, administrative, etc.)

   g. Number of base station repeaters equipped for telephone interconnection:

5. Data on busiest hour:
   (Specify the busiest hour and the time frame over which the following calculations were made.)

   a. Number of dispatch calls:

   b. Number of telephone calls:

   c. Average duration of dispatch calls:

   d. Average duration of telephone calls:

   e. Number of dispatch call busies, if any:

   f. Average delay for dispatch calls, if any:

6. Other federal agencies using the system, if any:

7. Additional comments:

CELLULAR TELEPHONE ACQUISITION DECISION MATRIX (ADDED)(AETC)

A5.1. Does the requirement document specify that the primary use will be for command and control communications? (If "yes," look for a technical solution other than a cellular telephone. If "no," proceed to the next item.)

A5.2. Does the requirement document identify a need for transmission or reception of classified or sensitive unclassified information in a mobile environment? (If "yes," look at a portable/mobile STU-III technical solution rather than a conventional cellular instrument. If "no," proceed to the next item.)

A5.3. Does satisfaction of this requirement with a cellular telephone result in a net reduction in the number of LMRs or pagers in use on the base? (If "yes," examine paragraphs A5.3.1 and A5.3.2. If "no," proceed to paragraph A5.4.)

A5.3.1. Does the requirement document identify a mission that was previously satisfied by an LMR or pager? (If "yes," proceed to paragraph A5.3.2. If "no," proceed to paragraph A5.4.)

A5.3.2. What aspect of the original mission has changed that makes the continued use of LMR or pagers unworkable? (If the requirement is essentially the same as before and convenience is the primary reason for the request, acquisition of a cellular telephone is not warranted. If there is a substantial change to the mission, however, proceed to paragraph A5.4.)

A5.4. Is there a serious mission degradation, failure, or life and death impact not previously present that cannot be met through the use of LMRs or pagers? (If "yes," consider the applicability of cellular instruments. If "no," see paragraph A5.3.1.)